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USAID Evaluation Highlights No. 33

July 1995

Privatizing Fertilizer Distribution in Cameroon
(PN-ABS-528)

Summary
In the mid-1980s, USAID's Mission in Cameroon undertook to address the ineffective and inefficient methods being used by a government enterprise to acquire and distribute fertilizer to coffee farmers. The problem was that the parastatal, which was providing fertilizer to coffee farmers at a 70 percent subsidy, was unable to meet the demand for fertilizer in a timely manner and was incurring exceedingly high distribution costs. The solution envisaged by the Mission was phaseout of fertilizer subsidies and complete privatization and liberalization of the fertilizer distribution system in the country's seven coffee-producing provinces.

The program to achieve these objectives the Fertilizer Sub-Sector Reform Program (FSSRP) succeeded beyond the expectations perhaps even of its original designers. The fertilizer subsidy was terminated, fertilizer prices were decontrolled, the government agency responsible for distribution was dissolved, and a thriving private sector trade in fertilizers emerged. Of course, eliminating the subsidy raised the price of fertilizer to farmers. But the increase was offset by cost savings obtained from privatization and liberalization.

An evaluation undertaken by the Agency's Center for Development Information and Evaluation revealed that without FSSRP, fertilizer prices would probably have soared 300 percent if the only action had been to eliminate the subsidy. But the actions taken through FSSRP involving market privatization and price liberalization resulted in such a large decrease in marketing and delivery costs that the actual increase in the price of fertilizer to farmers was limited to 42 percent. A more important outcome was that, in the final years of the project, fertilizer was being delivered where and when it was needed. That had rarely occurred under the old system.

In the short term, FSSRP had little discernable effect, one way or the other, on agricultural production. During program implementation, agricultural production decreased significantly in the program area, but for reasons unrelated to FSSRP. The main cause for the decreased production was a sharp drop in the world price of coffee. The decline was passed on to farmers in the form of a much lower farm gate price. However, the recent devaluation of the Cameroonian currency (which occurred after data for this evaluation were collected) will almost certainly increase the farm gate price for coffee and give farmers an incentive to start producing coffee in greater quantity. New efficiencies in fertilizer distribution should then increase the profitability of coffee production and encourage even more production.

A further benefit of FSSRP was that successful reform of the fertilizer distribution system has, according to government officials, demonstrated the effectiveness of privatization and liberalization. One official told the evaluation team, perhaps hyperbolically, FSSRP has served as a sort of avant-garde for the government's policies of democratization, liberalization, and privatization.

Some government officials continue to resist more far-reaching reform. Fertilizer distribution is still controlled by the government for three northern cotton-producing areas. Price controls remain on robusta coffee and cocoa, and few other public sector enterprises have been eliminated or privatized. But there are signs that a new generation of younger, more market-oriented government officials will eventually replace those now in power, many of whom are still inclined toward a command economy. Perhaps the next generation will carry out reforms that will be as successful as FSSRP.

Background

Until 1985, Cameroon was considered one of Africa's success stories. From 1970 through 1980, growth in gross domestic product (GDP) averaged 5 percent a year. That was mainly because of coffee and cocoa exports, which in 1977 accounted for 60 percent of total export earnings. During this period, the government's economic policies aimed at promoting exports and encouraging foreign private investment. The currency, the CFA (Communaut, FinanciŠre Africaine) franc, was fully convertible, and no restrictions existed on foreign investments or repatriation of earnings. Economic performance was given an additional boost in the late 1970s when petroleum became the country's major export. However, underlying economic problems became apparent in 1986, when world petroleum prices tumbled. Export earnings declined 33 percent in 1986, and the government's budget deficit in 1986-87 came to $1.5 billion, 13 percent of GDP. This was accompanied by a long-term decline in coffee and cocoa prices. These declines have caused GDP to fall every year since 1986.

Since before independence in 1960, parastatals have dominated the formal sector, and government agencies have controlled prices and marketing margins of several commodities. Producer prices were fixed by a price stabilization authority, partly to protect producers from fluctuating world prices and partly to generate government surpluses to finance development projects. One use of these surpluses was to subsidize fertilizers and hence encourage their use by coffee farmers.

Farmers were, of course, happy to get their fertilizer at a subsidized price, but they were also aware that the government-controlled system for fertilizer importation and distribution, as well as for the management of the subsidy, was expensive, cumbersome, and time consuming. From beginning to end, the import and distribution involved at least nine government ministries or agencies, ensuring high costs, long delays, and multiple opportunities for corruption. At best, the supply schedule required 15 months; at worst, 2 years.

When the world market price of coffee began to plummet in the mid-1980s and the price stabilization program began, as a consequence, to experience deficits, the government found it could no longer afford to subsidize the price of fertilizer. This fact, plus pressure from USAID/Cameroon and other donors to scale back economic controls, resulted in FSSRP.

Program Description

FSSRP's stated objective was to ensure timely availability of fertilizers for export and food crops at the lowest possible cost to farmers and government. This objective was to be achieved by replacing subsidized distribution with a fully privatized unsubsidized system. The government agency responsible for the system, Fond National pour le D,velopment Rurale (FONADER), was to be dissolved in the first year. Subsidies were to be phased out over 5 years. The Mission envisaged four major benefits from these changes: (1) reduced marketing costs, (2) savings to the government, (3) more timely and flexible availability of fertilizer, and (4) more efficient use of fertilizer by farmers. The program was straightforward in design. The government established a policy-level Technical Supervisory Committee with a secretariat to oversee privatization and subsidy phaseout. USAID provided technical assistance to help the supervisory committee with program implementation; the technical assistance team consisted of one long-term adviser and various short-term consultants who came once a year to assess progress and advise the government on how to resolve implementation problems. USAID also established a revolving credit fund to help the private sector finance the fertilizer trade that had previously been financed entirely by the government. The program provided that all subsidy funds and loans financed by the revolving credit fund were to be disbursed through commercial banks to private importers and distributors who qualified for unguaranteed bank loans. This ensured that all participants in the newly privatized system were financially sound.

The program budget totaled $15 million $1.5 million for technical assistance and $13.5 million for the credit fund. The program lasted 6 years, from 1987 through 1993.

Program Performance

The evaluators examined FSSRP as it related to three outcomes: policy reform, economic progress, and financial improvement. They found the program achieved its objectives in all areas.

Policy Reform

Going by its stated objectives phaseout of the fertilizer price subsidy and privatization of the fertilizer distribution system the program was an unqualified success. The subsidy was decreased every year during program implementation until, in 1993, it was eliminated altogether. FONADER was dissolved in the first year and by 1993 had been replaced by a fully functional private sector fertilizer distribution system.

These results were achieved despite two problems during program implementation. First, the government was never able to establish an effective secretariat for the Technical Supervisory Committee. This could have turned the program into a strictly USAID product and left the committee without the data and analysis needed to implement the program and have the subsidy phaseout accepted as official government policy. This gap, however, was filled by USAID-financed technical assistance complemented by USAID direct-hire staff. Staff and technical advisers consulted closely with the government and private sector to identify and resolve implementation problems and to ensure that government and private sector concerns were addressed. The committee came to view the FSSRP technical advisers as its de facto secretariat. The second problem concerned the revolving credit fund. The fund was created on the assumption that private agribusinesses lacked the capital to finance the fertilizer trade and would require short-term financing at subsidized interest rates. Under the program, financing had to be channeled through commercial banks. The credit fund was to provide a subsidy to banks so they could provide loans at a low rate of interest; otherwise, banks were to lend on terms that fully met their normal lending requirements. The program further required the government to provide the subsidy on import price of fertilizer only to firms that qualified for and actually obtained bank loans; this provision was meant to ensure that only financially sound firms received the subsidy.

However, banks proved extremely reluctant to make loans for fertilizer marketing. They used the credit fund to finance loans to fertilizer importers only if the loans were fully secured by liquid assets. Moreover, the main motivation for firms to borrow was to obtain the fertilizer price subsidy. The few loans that were made went only to importers. No loans financed by the credit fund were made to distributors who purchased fertilizer from importers for sale to retailers or to farmers. In the end, though, the unwillingness of banks to finance the fertilizer trade was not a major problem; most importers and distributors were able to finance transactions with their own funds or from sources other than commercial banks.

The success of the privatization effort can be measured in three ways. First, at the end of the program's life, the newly created private distribution system was meeting farmer demand for fertilizer effectively and at no cost to the government. Every year since the program began, at least 10 private Cameroon-based importers have responded to requests for bids from Cameroonian distributors; in most years two or three firms have ended up actually importing. The importers are new firms that did not exist before the program began.

Distribution channels have also changed considerably. Before FSSRP, most fertilizers were distributed by four large cooperative unions. By 1992 distributors had increased to 22. Of these, only 3 were cooperative unions, 8 were primary cooperative societies, and 11 were private businesses. Some private distributors were selling to cooperatives, who then sold to their members. Below the distributor level, there are hundreds of private retailers selling in local markets. Most were already in business selling other products and have simply added fertilizer to their product line.

Second, the program has greatly increased the efficiency of the marketing system. As can be seen from the figure on the next page, if the distribution system had not been privatized, removing the 70 percent subsidy would have tripled the fertilizer price to farmers. But with lower marketing costs associated with privatization, the price to farmers increased by only 42 percent. The major savings have been in importing. Intense competition to supply in-country distributors has forced importers to purchase from the lowest cost foreign sources, whether in Europe, the United States, the former Eastern Bloc countries, or Nigeria. The result has been a 49 percent decline in the CIF price (cost, insurance, and freight) of fertilizers imported under FSSRP. Distribution costs have also declined as a result of more effective competition among transporters and improved inventory management by distributors. Over the life of the program, average distribution costs from port to producing areas dropped 26 percent.

As important as lower marketing costs is improved availability. Fertilizers are now purchased at the port by distributors for delivery to farmers throughout the year. They are sold by small retailers wherever there is sufficient demand. This is in sharp contrast to the former system under which fertilizers were purchased once a year, theoretically on a schedule coinciding with coffee production. There was no effort to supply fertilizers at the appropriate time for other crops, and in most cases the fertilizers arrived too late to meet the needs even of coffee farmers.

Third, the program has created a policy environment more favorable to open markets and private sector led growth. Government officials accepted privatization mainly because subsidies and the costs of covering FONADER's deficits were no longer affordable, not because they had come to see open markets as preferable to government controls. In fact, there was considerable skepticism, even among members of the Technical Supervisory Committee, as to whether the private sector would be able to replace the public sector distribution system. Officials followed program implementation closely. Several officials told the evaluation team the FSSRP experience had been educational and critical in demonstrating that privatization not only increases efficiency but also fosters equitable growth. This has aided donor efforts to privatize coffee and cocoa marketing. It has also brought about increased government understanding of how market forces work. Many officials in the Ministries of Finance, Planning, and Agriculture now favor less rather than more government control. The strongest opposition to privatization is now centered in the parastatals that will be directly affected.

Economic Progress

As a policy reform program, FSSRP was successful. Its objective liberalization and privatization of the coffee fertilizer market was fully accomplished. But liberalization and privatization are not in and of themselves economic and financial objectives. For FSSRP, the economic objective was to improve the fertilizer distribution system so that fertilizer use on coffee would increase, resulting in renewed growth in coffee production and exports.

Assessing FSSRP's economic effect involves answering two questions. First, how were fertilizer use and agricultural production affected by the improved marketing system that resulted from the program? Second, what difference would the program have made if there had been no drop in the producer price or if the price had dropped substantially less than it did? Answering the first question requires comparing fertilizer use and agricultural production at the time of the evaluation with what they would have been without the program. In 1986, the year before the program began, most subsidized fertilizer in Cameroon was used on coffee more than half on hardy, labor-light robusta and the remainder on high-quality, labor-intensive arabica. Analyses of farm budgets for coffee production show that some subsidy was probably necessary in 1986 to induce farmers to use fertilizer, but only to compensate for high delivery costs of the government-controlled delivery system. If fertilizer had not been subsidized at the time, its use would have been marginally profitable on arabica coffee and unprofitable on robusta coffee. If, conversely, fertilizer had been distributed by the private sector in 1986, the cost to the farmer would have been much lower, so that its use on both arabica and robusta would have been unquestionably profitable even with no subsidy.

As the program was getting under way, however, world coffee prices, which had already dropped substantially from their 1978 highs, began to decline even more steeply. Between 1986 and 1992, world robusta and arabica coffee prices dropped by 79 and 73 percent, respectively. This compelled the Cameroon Government to decrease official producer prices by 65 percent and 47 percent. The result: fertilizer use on both types of coffee became unprofitable. Fertilizer use over the life of the program declined by 50 percent, from 60,000 tons to 30,000 tons, and coffee production fell by more than 50 percent, from 148,000 tons to 72,000 tons.

Farm budget analyses for coffee reveal that the main cause of the decline in fertilizer use and coffee production was not higher costs for fertilizer but lower prices for coffee. Further evidence for this conclusion is revealed from farm budget analysis on other crops. Fertilizer use on maize, for example, increased during the period. The price of maize held steady during the period so that, despite increased fertilizer costs, marginal returns to use of fertilizer exceeded marginal costs. Maize production during the period grew by 32 percent. Moreover, it is reasonable to assume that if the fertilizer subsidy had been maintained, fertilizer use on coffee would still have been unprofitable and would not have been much higher than it is now. Nor would fertilizer use on other crops (maize and vegetables) have been much different. Studies have shown that markets for these crops are so thin that any further increases in production would have lowered prices to levels at which fertilizer use would have been unprofitable. If the subsidy had been removed in the absence of FSSRP, fertilizer would have been more expensive and less readily available than it is now. Thus, if the subsidy could somehow have been maintained, fertilizer use might have been marginally higher than it is now, and if the subsidy had been removed without FSSRP assistance in improving marketing and delivery systems, fertilizer use would certainly have been much lower than it is now.

Thus, by the time of the evaluation FSSRP had little effect on fertilizer use or agricultural production. But an improved marketing system had succeeded in keeping the cost of fertilizer much lower than it would otherwise have been when the subsidy was eliminated. With falling world coffee prices, however, this lowered cost did not affect, one way the other, fertilizer use or agricultural production.

Using fertilizer on coffee would have become unprofitable with or without the 42 percent increase in fertilizer price (likewise with any crops if the fertilizer price had risen 300 percent.) Interviews with farmers reveal that coffee production had become so unprofitable that they had virtually abandoned intensive coffee farming. Basically, they were leaving their fields untended, doing little more than plucking whatever beans managed to grow in the unfertilized, unweeded fields.

The second question, What difference would the program have made if there had been no drop in the producer price or if the price had dropped substantially less than it did? is important because the CFA franc was highly overvalued during program implementation. If the currency had been devalued in the late 1980s, the producer price could have been maintained at a higher level. As it happened, the currency was in fact devalued by 50 percent in January 1994, one month after completion of evaluation fieldwork. Answering the second question thus allows us to venture predictions as to what levels fertilizer use and agricultural production might reach in the future.

If it is assumed subsidies would have been removed with or without FSSRP, it can be concluded the program caused fertilizer prices to increase by only 42 percent instead of 300 percent, which would have been the price increase without the program. At prevailing producer prices, the 42 percent price increase made almost no difference because fertilizer use was not profitable at any price. However, the 50 percent devaluation will double the price of both coffee and fertilizer.

Analysis of coffee farm budgets shows that if both increases the doubled cost of fertilizer and the doubled price of coffee are passed on to the farmer, fertilizer use will once again become profitable on both arabica and robusta coffee. Even at conservative yield assumptions, the return to labor will increase to twice the prevailing wage rate. It can therefore be expected that increased farmer demand, combined with the privatized marketing system, will result in fertilizer use greatly surpassing the 60,000 tons consumed before FSSRP.

Financial Improvement

Financially, the program aimed at improving the lot of Cameroonian coffee farmers by increasing their income and by distributing the increased income more widely. Unlike some other agribusiness programs, where most of the impact is on new or revitalized agribusinesses, the principal financial effect of FSSRP occurs at farm level. Increased agricultural production that can be expected to result from the program will affect hundreds of thousands of farmers, whereas the increase in number of fertilizer importers and distributors will create only several hundred jobs. At Cameroon's level of development, most of the value added resulting from agribusiness development still takes place on the farm.

At the farm level, the financial effect of FSSRP should be substantial. The evaluation revealed that privatization has caused fertilizer to be priced competitively and to be readily available where and when there is adequate demand. Supplies are no longer delayed by government budget constraints or inefficiencies in public sector marketing systems. With devaluation, these efficiencies should result in increased coffee production and increased rural incomes.

It can be expected that benefits of this increased production and income will be widely distributed in rural areas. Virtually all coffee, as well as maize and vegetables, is grown by small farmers with holdings under 2 hectares. For robusta coffee, nearly all the value added is on the farm and shows up as increased farm income. For arabica coffee, a significant share of value added occurs in the labor-intensive task of processing beans before export. Labor used in arabica coffee production is almost double that used in robusta production.

The evaluation found that increased use of fertilizer on vegetables was of particular benefit to women, who not only grow the produce but also control income from its sales. This is in contrast to coffee income, which is traditionally controlled by men. (Given the social structure in most regions of Cameroon, if vegetables were to become a major cash crop, men would likely assume greater control over the income. There is no evidence, however, that this occurred.) Although broad-based, equitable growth was not a stated FSSRP objective, the benefits of increased fertilizer availability are widely distributed, to women as well as men, and are concentrated in rural areas.

Conclusions and Lessons Learned

FSSRP succeeded in its immediate objective liberalization and privatization of fertilizer distribution in at least the seven southern coffee-producing regions. (Fertilizer for the three northern cotton-producing provinces is still government controlled.)

FSSRP also succeeded in its intermediate objective of making fertilizer available to farmers on a more timely basis at lower cost. CIF and internal distribution costs for fertilizer fell significantly as a result of privatization. The private sector, moreover, has proved to be responsive to fertilizer market conditions. Fertilizer now flows to farmers when and where needed and in the quantities required.

What contributed to the successful liberalization and privatization of Cameroon's fertilizer supply system? First, USAID concentrated on a limited policy objective that could make a difference rather than on broader and more complex issues related to government deficit reduction and economic liberalization, where it probably would have had little effect. The fertilizer distribution issue was easily defined, affected few institutions, and required actions within the management capacity of USAID/Cameroon and the Cameroon Government. Second, the policy change addressed an immediate and strongly felt government need. The Cameroon Government could no longer afford fertilizer subsidies, so when USAID/Cameroon initiated discussions on privatizing fertilizer distribution, the government expressed strong interest. There was some resistance, but FSSRP was exactly what key policymakers wanted and needed at the time.

Third, the soundness of program design and the effectiveness of implementation were attributable to sound analysis of policy issues, to the availability of well-qualified technical experts, and to effective policy dialogue and negotiation. Of particular importance was the dialogue that preceded and accompanied program design, then continued with assistance from technical advisers (provided at a cost of less than $2 million) during program implementation.

For the Cameroon Government, removing the fertilizer subsidy was a major policy breakthrough. The subsidy amounted to about 70 percent of full delivered cost. Removing it without measures to lower marketing and delivery costs would have reduced fertilizer use and hurt agricultural production. Resolution of key issues regarding price liberalization and market privatization required months of high-level dialogue and negotiation, but in the end USAID and the government were satisfied these reforms would improve fertilizer supply and be sustainable.

USAID/Cameroon provided competent staff and technical advisers during all phases of the program. During implementation, annual reviews and workshops involved government officials, USAID officials, and participants from the private sector. Consultants brought in for the reviews worked with the government's concerns in mind and made their recommendations to the government, not to USAID. Within conditions set by FSSRP, the government had the final say on which recommendations to accept.

Nonproject assistance of $13 million, while important in initiating the dialogue, turned out not to be a major factor affecting FSSRP outcomes. Assistance was provided to create the revolving credit fund, because the

government and USAID initially saw creation of the fund as essential for privatizing fertilizer marketing. In the end, though, private agribusinesses provided their own working capital, and the fund wasn't necessary.
The FSSRP experience also shows that success in policy reform does not guarantee that production and employment will increase, at least not right away. After FSSRP began, fertilizer use and agricultural production actually fell. A drop in world coffee prices and Cameroon's overvalued currency conspired to make fertilizer use on coffee unprofitable. There is nothing the Cameroon Government could have done to affect world coffee prices, but a timely devaluation of the CFA franc by the central and west African monetary unions and domestic macroeconomic reforms would have greatly increased the effect of improved fertilizer distribution on agricultural production and incomes. That a devaluation has now occurred makes it likely the improved fertilizer market will have a substantial and positive economic effect on agriculture.

Improved fertilizer distribution would have had more impact on production if all obstacles to fertilizer use could have been addressed simultaneously. FSSRP addressed only the supply of one input needed for agriculture. For the program to have had maximum effect, a more efficient fertilizer distribution system should have been accompanied by improved marketing for coffee, improved infrastructure and marketing services for food crops, and more effective public and private agricultural research and extension. However, programs to reform policies affecting agribusiness can seldom address everything at once. That said, policy reforms and support activities should fit into a comprehensive strategy that eventually addresses all major constraints on commercial farming and agribusiness.

This Highlights summarizes findings from the field evaluation of the Fertilizer Sub-Sector Reform Program conducted by Roger L. Poulin and Craig V. Olson, both of Development Alternatives, Inc. The evaluation, Assessment of USAID's Agribusiness Programs: Cameroon Case Study, CDIE Working Paper No. 158, is part of a seven-country assessment directed by Krishna Kumar of CDIE. The working paper can be ordered from the DISC, 1611 North Kent Street, Suite 200, Arlington, VA 22209-2111. Telephone: (703) 351-4006. Fax: (703) 351-4039. Internet: docorder@disc.mhs.compuserve.com. Editorial and production support provided by Conwal, Inc.